## Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of the claims in the application.

***Listing of Claims:***

1. (Currently Amended) A method for determining the presence of a target nucleic acid in a sample, said method comprising:

a) providing to a sample an in solution, negatively charged polynucleotide probe and a synthetic, water soluble polycationic polymer, ~~wherein~~ said probe [[is]] being provided to said sample under conditions permitting said probe to preferentially hybridize to a target nucleic acid[[,]] which may be present in said sample, thereby forming a probe:target duplex, ~~and~~ wherein said polymer ~~is provided to said sample in an amount sufficient to increase the association rate of said probe and said target nucleic acid in said sample under said conditions~~ has a weight average molecular weight of from 10,000 Da to about 300,000 Da, and wherein the concentration of said polymer in said sample is in the range of about 1 μM to about 1000 μM;

b) adding to said sample a dissociating reagent in an amount sufficient to dissociate said polymer from said duplex after said probe and said target nucleic acid have had sufficient time to associate in said sample; and

c) determining whether said duplex is present in said sample as an indication of the presence or absence of said target nucleic acid.

2. (Canceled)

3. (Original) The method of claim 1, wherein said polymer is a copolymer.

4. (Original) The method of claim 1, wherein said polymer is a graft copolymer.

5. (Original) The method claim 1, wherein said polymer has a delocalized charge.

6. (Canceled)

7. (Canceled)

8. (Original) The method of claim 1, wherein said probe includes multiple interacting labels and comprises first and second base regions which hybridize to each other under said conditions in the absence of said target nucleic acid, wherein said labels interact with each other to produce a first detectable signal when said probe is not hybridized to said target nucleic acid and a second detectable signal when said probe is hybridized to said target nucleic acid, and wherein said first and second signals are detectably different from each other.

9. (Original) The method of claim 8, wherein said probe includes a third base region which hybridizes to said target nucleic acid under said conditions, and wherein said third base region is distinct from said first and second base regions or said third base region partially or fully overlaps at least one of said first and second base regions of said probe.

10. (Original) The method of claim 1, wherein said probe is a polyanion.

11. (Original) The method of claim 10, wherein said probe further includes at least one of a cationic group and a nonionic group.

12. (Original) The method of claim 10, wherein the distance between adjacent cationic monomers of said polymer approximates the distance between adjacent phosphate groups of said probe and said target nucleic acid.

13. (Original) The method of claim 1, wherein said target nucleic acid comprises RNA.

14. (Canceled)

15. (Canceled)

16. (Currently Amended) The method of claim 1, wherein a complex comprising said polymer is formed in said sample under said conditions, and wherein the cationic monomers of said polymer are in molar excess of the phosphate groups of said probe.

17. (Currently Amended) The method of claim 16, wherein said complex includes a plurality of said polymers which are covalently linked.

18. (Canceled)

19. (Original) The method of claim 16, wherein said complex is water soluble.

20. (Original) The method of claim 1, wherein said probe and said polymer are in solution during the formation of said duplex.

Claims 21-27 (Canceled)

28. (Original) The method of claim 1, wherein said conditions include a temperature of at least about 40°C and a salt concentration of at least about 5 mM monovalent cations or an equivalent salt concentration containing multivalent cations.

29. (Original) The method of claim 28, wherein said temperature is up to about 60°C.

30. (Original) The method of claim 1, wherein said conditions include a temperature of at least about 40°C and a salt concentration of at least about 150 mM monovalent cations or an equivalent salt concentration containing multivalent cations.

31. (Original) The method of claim 30, wherein said temperature is up to about 60°C.

32. (Original) The method of claim 1, wherein said polymer is provided to said sample before said probe.

33. Canceled

34. (Previously Presented) The method of claim 1, wherein said determining step is diagnostic for the presence or absence of a virus or organism or members of a group of viruses or organisms in said sample.

35. Canceled

36. (Previously Presented) The method of claim 1, wherein said probe includes a label.

Claims 37-60 (Canceled)

61. (Previously Presented) The method of claim 1, wherein said probe and said polymer are independently provided to said sample.

62. (New) The method of claim 1, wherein the concentration of said polymer in said sample is in the range of about 10 μM to about 100 μM.

63. (New) The method of claim 1, wherein said dissociating reagent is at least one of a polyanion or an anionic detergent.

64. (New) the method of claim 63, wherein said dissociating reagent is a polyanion.

65. (New) The method of claim 63, wherein said dissociating reagent is an anionic detergent.

66. (New) The method of claim 65, wherein said anionic detergent is lithium lauryl sulfate.

67. (New) The method of claim 66, wherein said lithium lauryl sulfate is present in said sample at a concentration of about 1% (w/v).

68. (New) A method for determining the presence of a target nucleic acid in a sample, said method comprising:

a) providing to a sample an in solution, negatively charged polynucleotide probe and a synthetic, water soluble polycationic polymer, said probe being provided to said sample under conditions permitting said probe to preferentially hybridize to a target nucleic acid which may be present in said sample, thereby forming a probe:target duplex, wherein the cationic monomers of said polymer are in molar excess of the phosphate groups of said probe;

b) adding to said sample a dissociating reagent in an amount sufficient to dissociate said polymer from said duplex after said probe and said target nucleic acid have had sufficient time to associate in said sample; and

c) determining whether said duplex is present in said sample as an indication of the presence or absence of said target nucleic acid.

69. (New) The method of claim 68, wherein said polymer is a copolymer.

70. (New) The method of claim 68, wherein said polymer is a graft copolymer.

71. (New) The method claim 68, wherein said polymer has a delocalized charge.

72. (New) The method of claim 68, wherein said probe includes multiple interacting labels and comprises first and second base regions which hybridize to each other under said conditions in the absence of said target nucleic acid, wherein said labels interact with each other to produce a first detectable signal when said probe is not hybridized to said target nucleic acid and a second detectable signal when said probe is hybridized to said target nucleic acid, and wherein said first and second signals are detectably different from each other.

73. (New) The method of claim 72, wherein said probe includes a third base region which hybridizes to said target nucleic acid under said conditions, and wherein said third base region is distinct from said first and second base regions or said third base region partially or fully overlaps at least one of said first and second base regions of said probe.

74. (New) The method of claim 68, wherein said probe is a polyanion.

75. (New) The method of claim 74, wherein said probe further includes at least one of a cationic group and a nonionic group.

76. (New) The method of claim 74, wherein the distance between adjacent cationic monomers of said polymer approximates the distance between adjacent phosphate groups of said probe and said target nucleic acid.

77. (New) The method of claim 68, wherein said target nucleic acid comprises RNA.

78. (New) The method of claim 68, wherein a complex comprising said polymer is formed in said sample under said conditions.

79. (New) The method of claim 78, wherein said complex includes a plurality of said polymers which are covalently linked.

80. (New) The method of claim 78, wherein said complex is water soluble.

81. (New) The method of claim 68, wherein said probe and said polymer are in solution during the formation of said duplex.

82. (New) The method of claim 68, wherein said conditions include a temperature of at least about 40°C and a salt concentration of at least about 5 mM monovalent cations or an equivalent salt concentration containing multivalent cations.

83. (New) The method of claim 82, wherein said temperature is up to about 60°C.

84. (New) The method of claim 68, wherein said conditions include a temperature of at least about 40°C and a salt concentration of at least about 150 mM monovalent cations or an equivalent salt concentration containing multivalent cations.

85. (New) The method of claim 84, wherein said temperature is up to about 60°C.

86. (New) The method of claim 68, wherein said polymer is provided to said sample before said probe.

87. (New) The method of claim 68, wherein said determining step is diagnostic for the presence or absence of a virus or organism or members of a group of viruses or organisms in said sample.

88. (New) The method of claim 68, wherein said probe includes a label.

89. (New) The method of claim 68, wherein said probe and said polymer are independently provided to said sample.

90. (New) The method of claim 68, wherein the concentration of said polymer in said sample is in the range of about 1 μM to about 1000 μM.

91. (New) The method of claim 90, wherein the concentration of said polymer in said sample is in the range of about 10 μM to about 100 μM.

92. (New) The method of claim 68, wherein said polymer has a weight average molecular weight of from 10,000 Da to about 300,000 Da.

93. (New) The method of claim 68, wherein said dissociating reagent is at least one of a polyanion or an anionic detergent.

94. (New) the method of claim 93, wherein said dissociating reagent is a polyanion.

95. (New) The method of claim 93, wherein said dissociating reagent is an anionic detergent.

96. (New) The method of claim 95, wherein said anionic detergent is lithium lauryl sulfate.

97. (New) The method of claim 96, wherein said lithium lauryl sulfate is present in said sample at a concentration of about 1% (w/v).